

CLAIMS

1. Flanged connection (13) for fixing a gas-filled spring (10) in a machine tool (12), the flanged connection (13) comprising an upper flange half (16) and
5 a lower flange half (17), which can be joined together and which each have a through-opening intended to receive the gas-filled spring (10), and a locking ring (18) intended to secure the gas-filled spring (10) by insertion into a groove of complementary design around the gas-filled spring (10) and intended for fixing between the flange halves (16, 17), **characterised**
10 **in that** the locking ring (18) is supplemented by a fixing element (19) designed to apply a clamping force (F_1) around the gas-filled spring (10) when joining the flange halves (16, 17) together.
2. Flanged connection (13) according to Claim 1, **characterised in that** the
15 locking ring (18) and the fixing element (19) are designed as at least two separate parts.
3. Flanged connection (13) according to Claim 2, **characterised in that** the
20 fixing element (19) is furthermore designed to apply a contact force against the locking ring (18).
4. Flanged connection (13) according to Claim 1, **characterised in that** the
25 locking ring (18) and the fixing element (19) are designed as an integrated unit.
5. Flanged connection (13) according to Claim 1, **characterised in that** at
least one of the flange halves (16, 17) on its inside has a section inclined in relation to the central axis of the flanged connection (13) and designed to bring a correspondingly inclined section on the outside of the fixing
30 element (19) into engagement in order to produce the clamping force (F_1).
6. Flanged connection (13) according to Claim 5, **characterised in that** the
fixing element (19) has a groove (23) running along its outside and designed to bring a projecting part (24) arranged on the inside of one of
35 the flange halves (16, 17) having the inclined section into engagement.
7. Flanged connection (13) according to Claim 2, **characterised in that** the
fixing element (19) has a recess along its inside designed to receive the locking ring (18).

8. Flanged connection (13) according to Claim 1, **characterised in that** the flanged connection (13) is fitted to the machine tool (12) by means of fasteners (15) and that the fasteners (15) are designed to generate the clamping force (F_1) between the fixing element (19) and the gas-filled spring (10) and where appropriate to generate a contact force between the fixing element (19) and the locking ring (18).
9. Flanged connection (13) according to Claim 1, **characterised in that** the clamping force (F_1) is designed to prevent rotation of the gas-filled spring (10).
10. Method of fixing a gas-filled spring (10) in a machine tool (12), by which method an upper flange half (16) and a lower flange half (17) which can be joined together are fitted around the gas-filled spring (10) and a locking ring (18) arranged between the flange halves (16, 17) is fitted around the gas-filled spring (10) in a groove (14) of complementary design and is fixed between the flange halves (16, 17) securing the gas-filled spring (10), **characterised in that** when joining a clamping force (F_1) is applied around the gas-filled spring (10) by a fixing element (19) supplementing the locking ring (18).
11. Method according to Claim 10, **characterised in that** the locking ring (18) and the fixing element (19) are designed as at least two separate parts.
12. Method according to Claim 11, **characterised in that** when joining a contact force is also applied against the locking ring (18) by the fixing element (19).
13. Method according to Claim 10, **characterised in that** the locking ring (18) and the fixing element (19) are designed as an integrated unit.
14. Method according to Claim 10, **characterised in that** a section inclined in relation to the central axis of the flanged connection (13) on the inside of at least one of the flange halves (16, 17) is brought into engagement with a correspondingly inclined section on the outside of the fixing element (19), the fixing element (19) being applied around the gas-filled spring (10) with the clamping force (F_1) and where appropriate being applied against the locking ring (18) with a contact force.

15. Method according to Claim 14, **characterised in that** a groove (23) running along the outside of the fixing element (19) is brought into engagement with a projecting part (24) arranged on one of the flange halves having the inclined section.
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16. Method according to Claim 10, **characterised in that** the clamping force (F_1) is generated when the flanged connection (13) is fitted to the machine tool (12) and that the clamping force (F_1) is of a predefined magnitude.
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17. Method according to Claim 16, **characterised in that** the magnitude of the clamping force (F_1) is adjusted by adjusting the tightening torque of the fasteners (15) used for fitting.
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18. Method according to Claim 10, **characterised in that** clamping force (F_1) serves to prevent rotation of the gas-filled spring (10).